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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/696,651

10/30/2003

Vincent Cedric Colnot

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EXAMINER

SUN, SCOTT C

ART UNIT

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2182

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/696,651	Applicant(s) COLNOT, VINCENT CEDRIC	
	Examiner SCOTT SUN	Art Unit 2182	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 March 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11, 13-25, 27 and 28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11, 13-25, 27 and 28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 3/10/2008 have been fully considered but they are not persuasive. Applicant's arguments are summarized as:
 - a. Prior art of record does not disclose an on-chip oscillator.
 - b. Prior art of record does not disclose that both communication interfaces share a single I/O terminal.
2. Regarding argument 'a', examiner notes that applicant argues that the oscillator being "on the card" does not necessarily mean "on-chip". However, teachings of Atsmon are directed to a smartcard or as applicant described "a pocket sized card with embedded integrated circuits which can process information". The oscillator, known in the art as a device that regulates the processor's computing cycles, is clearly part of the "embedded integrated circuit", and therefore on-chip. The "card" portion of the smartcard is just the protective outer surface without any active functionality. Assuming that the oscillator is on the card but not part of the integrated circuit (in other words, not imprinted on the silicon chip) is completely erroneous.
3. Regarding argument 'b', applicant argues that it is merely shown in the figure of the prior art that there's a single arrow, which can be more than a "single I/O terminal providing a single connection port" between the processor 169 and interface 190 of the prior art. Examiner notes that prior art teaches that the communication interface is "responsible for detecting information that is formatted according to a particular protocol and converting the information to a format suitable for presentation to processor 169". It

is clear that if the interface 190 converts the various protocols shown in figure 13 to “a format” suitable for the processor, there only needs to be a single I/O terminal from the interface 190 to the processor, shown by the singular arrow in figure 13. Assuming there’s more than one connection between the processor 169 and interface 190 contradicts the purpose of having the interface in the first place, as the various protocol ports can just be directed connected to the processor without converting them to “a format” suitable for the processor.

4. Having responded to each of applicant’s arguments, examiner notes that prior art of record still provides valid grounds of rejection as previously stated and attached below.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1, 2, 15, 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Atsmon et al (US Patent #6,607,136) in view of Leydier et al (PG Pub #US 2003/0046554 A1)

7. Regarding claim 15, Atsmon discloses a secure memory device (system shown in figure 1) for use with and contained within a smart card with a modem interface comprising circuitry of:

A rewritable memory (memory unit 22, figure 2; column 12, lines 38-42);

A processing unit or a microprocessor (processing unit 21);

An on-chip oscillator (oscillator circuit or RC circuit; column 13, lines 4-11), circuitry of which is contained in the secure memory device; examiner notes that Atsmon teaches both circuits being external. However, both circuits are external to the processor, not to the card. This is evidenced by the fact that Atsmon teaches the type of oscillator used is limited by the size of the card. Atsmon also teaches that the oscillator would be connected to the OSC1/CLKIN pin of the processor (figure 7). Accordingly, examiner asserts that the oscillator is on-chip (on the card).

An ISO 7816 interface (column 25, lines 12, 13);

A one-wire modem interface (transducer; column 11, lines 37-39);

Characterized in that both communication interfaces are bidirectional (input/output unit 35, figure 3; column 11, lines 36-40); Examiner notes that the I/O unit 35 can both receive and transmit data (therefore bi-directional).

Atsmon does not disclose explicitly that both communication interfaces share the same I/O terminal. However, Leydier discloses a smartcard (figure 13) such that communication interfaces (ISO, USB, Wireless ports) share a single I/O terminal (communication interface 190, paragraph 59) providing a single connection port on the secure memory device for both of the communication devices (figure 13, connection

port to processor 169). Teachings of Atsmon and Leydier are from the same field of smartcards, and specifically of multiple communication interface smartcards.

Therefore, it would have been obvious at the time of invention for a person of ordinary skill in the art to combine teachings of Atsmon and Leydier by using a common I/O terminal in the smartcard system of Atsmon for the benefit of converting data between different protocols (paragraph 59).

8. Regarding claim 2, Atsmon further discloses a secure memory of device as in claim 1, exchanging data with a host in the form of a modulated signal by means of a card reader reading the smart card (air, column 15, line 7), the smart card characterized by possessing all processing means required for exchanging data with the card reader (examiner notes that both Atsmon and Leydier teaches that the medium of transmission could be air, i.e. wireless transmission of acoustic signals).

9. Claims 3-11, 13, 14, 17-25, 27, 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Atsmon and Leydier further in view of Saitoh (US Patent # 5,929,414).

10. Regarding claim 3, Atsmon and Leydier combined discloses claim 2, but does not disclose explicitly when a reset input that controls activation of ISO interface and modem interface. However, Saitoh discloses a memory device (figure 1) wherein an ISO interface (contact 55) is active when a reset input is high, and a modem interface (modem 57) is active when the reset input is low (column 5, lines 22-43; lines 59-65). Examiner notes that Saitoh discloses the modem being activated and connected to the

CPU when VCC from a contact reader/writer is off. This means that reset input is also low (off) because a contact reader/writer provides a reset ON only when VCC is on.

Teachings of Atsmon, Leydier and Saitoh are from the same field of IC cards, and specifically of communication interface design of IC cards. Therefore, it would have been obvious for a person of ordinary skill in the art at the time of invention to combine teachings of Atsmon, Leydier and Saitoh by using the selector circuitry and logic in the combined IC card system for the benefit of switching between contact and contact-less data transfer in one IC card (column 2, lines 35-38).

11. Regarding claim 4, Atsmon, Leydier and Saitoh combined disclose claim 3, where Saitoh further discloses transmitting a modulated answer to reset to the host when the reset input is pulled down (column 3, lines 65-68; column 4, lines 1-2). Examiner notes that modem (contact-less interface to reader/writer) also conforms to ISO 7816-3, and therefore must communicate with the reader/writer in the same format. This is further evidence by Saitoh's teachings of a reader/writer that communicates with either contact or contactless IC cards (column 8, lines 29-40).

12. Regarding claim 5, Atsmon, Leydier and Saitoh combined disclose claim 4, where Saitoh further discloses transmitting the MAR only once, when the card is inserted into the card reader (column 8, lines 29-51). Examiner notes this operation is also defined by ISO standard 7816.

13. Regarding claim 6, Atsmon, Leydier and Saitoh combined disclose claim 5, where Saitoh further discloses where the MAR comprises at least three fields, a header,

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a card number and a random number. Examiner notes these fields are according to ISO standard 7816.

14. Regarding claim 7, Atsmon, Leydier and Saitoh combined disclose claim 6, where Saitoh further discloses computing a new random number prior to transmit the MAR. Examiner notes this again is a requirement of ISO standard 7816.

15. Regarding claim 8, Atsmon, Leydier and Saitoh combined disclose claim 3, where Atsmon further discloses transmitting data to and receiving data from a PC by means of a card reader plugged into the microphone input and the speaker output of the PC sound card (figure 1; column 31, lines 29-52).

16. Regarding claim 9, Atsmon, Leydier and Saitoh combined disclose claim 8, but does not disclose explicitly powered by voltage provided by the microphone input of the sound card. Examiner asserts that it would have been obvious for a person of ordinary skill in the art at the time of invention to provide power to the card using the a source on the host or card reader because it would eliminate need of a power source on the card, which is further evidenced by teachings of Leydier (paragraph 60).

17. Regarding claim 10, Atsmon, Leydier and Saitoh combined disclose claim 3, and Atsmon further discloses transmitting data to and receiving data from an IVR server by means of a card reader plugged into the telephone line (column 10, lines 60-65; column 20, lines 1-18).

18. Regarding claim 11, Atsmon, Leydier and Saitoh combined disclose claim 10, but does not disclose explicitly powered by voltage provided by the telephone line.

Examiner asserts that it would have been obvious for a person of ordinary skill in the art

at the time of invention to provide power to the card using the telephone line because it would eliminate the need of a power source on the card (also see the rejection of claim 9).

19. Regarding claim 13, Atsmon, Leydier and Saitoh combined disclose claim 2, but does not disclose explicitly powered by a battery cell within the card reader. Examiner asserts that it would have been obvious for a person of ordinary skill in the art at the time of invention to provide power to the card using battery cell within the card reader because it would eliminate the need of a power source on the card (also see the rejection of claim 9).

20. Regarding claim 14, Atsmon, Leydier and Saitoh combined disclose claim 3, where Saitoh further discloses where Vcc is connected to an ISO contact C1, Rst to an ISO contact C2, Clk to an ISO contact C3, Gnd to an ISO contact c5, and I/O to an ISO contact C7. Examiner notes that these connections are all part of the ISO 7816 standard.

21. Claims 17-25, 27, 28 are substantially similar to claim 3-14. The same rejection is applied.

Conclusion

22. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SCOTT SUN whose telephone number is (571)272-2675. The examiner can normally be reached on Mon-Thu, 10:00am-8pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz can be reached on (571) 272-6729. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/Tariq Hafiz/
Supervisory Patent Examiner, Art Unit 2182